

July 6, 2023

Docket No.: 52-026

ND-23-0574
10 CFR 52.99(c)(1)

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4
ITAAC Closure Notification on Completion of ITAAC 2.1.02.11c.i [Index Number 51]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.1.02.11c.i [Index Number 51] which confirms that valves identified in Combined License (COL) Appendix C Table 2.1.2-1 as having Diverse Actuation System (DAS) control perform an active safety function after receiving a signal from DAS. The closure process for this ITAAC is based on the guidance described in NEI 08-01, "Industry Guideline for the ITAAC Closure Process under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,



Jamie M. Coleman
Regulatory Affairs Director Vogtle 3 & 4

Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.1.02.11c.i [Index Number 51]

JMC/KIK/sfr

U.S. Nuclear Regulatory Commission

ND-23-0574

Page 2 of 2

cc: Regional Administrator, Region II
 Director, Office of Nuclear Reactor Regulation (NRR)
 Director, Vogtle Project Office NRR
 Senior Resident Inspector – Vogtle 3 & 4

**Southern Nuclear Operating Company
ND-23-0574
Enclosure**

**Vogtle Electric Generating Plant (VEGP) Unit 4
Completion of ITAAC 2.1.02.11c.i [Index Number 51]**

ITAAC Statement

Design Commitment

11.c) The valves identified in Table 2.1.2-1 as having DAS control perform an active safety function after receiving a signal from DAS.

Inspections, Tests, Analyses

i) Testing will be performed on the squib valves identified in Table 2.1.2-1 using real or simulated signals into the DAS without stroking the valve.

Acceptance Criteria

i) The squib valves receive a signal at the valve electrical leads that is capable of actuating the squib valve.

ITAAC Determination Basis

Multiple ITAAC were performed to verify that the valves identified in Combined License (COL) Appendix C Table 2.1.2-1 as having Diverse Actuation System (DAS) control perform an active safety function after receiving a signal from DAS. The subject ITAAC performed testing on the squib valves listed in Attachment A.

Testing was performed in accordance with Unit 4 work order and preoperational test procedure listed in Reference 1 to verify that the valves identified in Attachment A as having DAS control perform an active safety function after receiving a signal from DAS. Testing was performed on the squib valves using real signals into the DAS without stroking the valve and ensured the squib valves received a signal at the valve electrical leads that was capable of actuating the valve.

Circuit resistance was measured and inside and outside containment temperatures were measured at multiple locations and were used to calculate the circuit resistance expected during accident conditions. During testing each squib valve identified in Attachment A had the squib valve igniters replaced with test resistor fixtures. Test resistance was modified to be greater than the calculated maximum resistance expected during accident conditions. The squib valves were armed using the manual controls on the DAS panel/cabinets and then actuated with the DAS actuation controls. A Data Acquisition (DAQ) system was used to measure both firing current and signal duration.

The minimum signal necessary to actuate the squib valves was specified in valve design information as at least 3.7 amperes for 10 milliseconds. The information recorded during testing of duration and firing current was utilized to confirm that a sufficient test signal was received at each of the squib valves.

The completed test results (Reference 1), confirmed that each squib valve, identified in the Attachment A, received a signal at the valve electrical leads that was capable of actuating the squib valve.

Reference 1 is available for NRC inspection as part of the Unit 4 ITAAC Completion Package (Reference 2).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there were no relevant findings associated with this ITAAC. The review is documented in the ITAAC Completion Package (Reference 2) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.1.02.11c.i was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. SV4-RCS-ITR-800051, Rev. 0, ITAAC Technical Report, "Unit 4 Testing Results of RCS Squib Valves: ITAAC 2.1.02.11c.i, NRC Index Number: 51"
2. 2.1.02.11c.i-U4-CP-Rev 0, ITAAC Completion Package

Attachment A

***Excerpt from COL Appendix C Table 2.1.2-1**

*Equipment Name	*Tag No.	*Control PMS/ DAS
Fourth-stage ADS Squib Valve	RCS-PL-V004A	Yes/Yes
Fourth-stage ADS Squib Valve	RCS-PL-V004B	Yes/Yes
Fourth-stage ADS Squib Valve	RCS-PL-V004C	Yes/Yes
Fourth-stage ADS Squib Valve	RCS-PL-V004D	Yes/Yes